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The Honorable Board of Supervisors
County of Fresno

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County Administrative Officer

I am pleased to submit the 2001 Fresno County Agricultural Crop and Livestock Report. This annual compilation presents statistical data pertaining to the acreage, yield, and gross value of Fresno County agricultural products.

The 2001 Agricultural Crop and Livestock report is dedicated to the memory of Deran Koligian, District 1 representative on the Fresno County Board of Supervisors from January 1, 1983, to December 11, 2001. Supervisor Koligian described himself as a "dirt farmer, nothing more and nothing less." He was an advocate for agriculture and agricultural land preservation, while representing all District 1 constituents with determination and fairness.

The total gross production value of Fresno County agricultural commodities in 2001 was \$3,220,101,800. This represents a 1.86 percent decrease from the 2000 gross production value. It must be emphasized that the values presented in this report reflect gross values only, and do not in any manner reflect net income or loss to producers.

Agriculture continues as the major industry in Fresno County and is a driving force in the county's economy. Every dollar received by Fresno County producers results in the economic extension benefit of three and one-half dollars to the total economy of the county.

I sincerely appreciate the professional and dedicated work performed by Deputy Agricultural Commissioner/Sealer Dennis C. Plann; Supervising Agricultural/Standards Specialist Bruce Clayton; Agricultural/Standards Specialists Scotti Walker, Jennifer Fulbright and Brice Gross; and Seasonal Agricultural/Standards Specialists Cézanne Baker and Royann Delgado, as well as the rest of my staff at the Department of Agriculture for the preparation of this report.

My thanks to the many individuals, related agencies, and members of the agricultural industry for their contributions to the compilation of this report.

Sincerely,

Jerry Prieto, Jr.
Agricultural Commissioner/Sealer

DEDICATION

DERAN KOLIGIAN

The 2001 Crop Report is dedicated to the memory of Deran Koligian, in honor and recognition of his commitment, leadership and nineteen years of devoted service to the citizens and agriculture industry of Fresno County during his tenure as a member of the Board of Supervisors representing District 1.

Table of Contents

	Page
Dedication	ii
Fresno County's 10 Leading Crops	iv
2001 Highlights in Retrospect	v
Field Crops	1
Seed Crops	3
Vegetable Crops	4
Fruit and Nut Crops	7
Nursery Products	11
Livestock and Poultry	12
Livestock and Poultry Products	14
Apiary Products and Pollination Services	15
Industrial Crops	16
Statistical Comparisons and Summaries	17
Sustainable Agriculture	18

This report is also available at our internet site:
<http://www.fresno.ca.gov/4010/agwelcm.htm>

FRESNO COUNTY'S 10 LEADING CROPS

Crop	2001 Rank	2001 Dollar Value	2000 Rank	1991 Rank	1981 Rank
COTTON	1	\$ 368,121,000	3	2	1
GRAPES	2	343,135,000	1*	1	2
POULTRY	3	339,051,000	2	+	+
MILK	4	248,554,000	5	6	4
TOMATOES	5	206,708,000	4	3	6
CATTLE AND CALVES	6	185,500,000	6*	4*	3
ALMONDS	7	149,671,000	7	12	15
ORANGES	8	146,132,000	11	18	9
GARLIC	9	123,854,000	12	13	20
NECTARINES	10	<u>102,705,000</u>	14	10	8
TOP TEN TOTAL		\$2,213,431,000			

+ Not previously combined for ranking purposes

* Revised

2001 Highlights in Retrospect

January:

Cold, dry weather slowed growth in grains, field crops, and vegetables. Wheat, barley, and oats were fertilized and treated with herbicides. Fields were prepared for alfalfa, cotton, tomatoes, and vegetables. Grape vines were pruned and tied; brush was shredded and disced. Nut and tree fruit orchards were pruned and treated with dormant sprays and herbicides. Lettuce was thinned, weeded, and irrigated. Garlic, onions, and carrots were planted. Bok choy, broccoli, cauliflower, cabbage and napa cabbage, cilantro, and mustard greens were harvested. Navel oranges and Satsuma mandarins were picked and packed.

February:

Heavy rain and hail on February 10 damaged approximately 75 acres of vegetable crops. Fields were prepared for the planting of cotton, tomatoes, and summer vegetable crops. Alfalfa was fertilized and treated with herbicides. Pruning, tying, brush shredding, cultivation, and insecticide application continued in grape vineyards. New grape varieties were planted or grafted onto existing rootstock. Strawberry fields were weeded and plastic row covers laid down. Bloom began in strawberries, blueberries, and early stone fruit varieties. Dormant spraying, mowing, pruning, and herbicide treatments were in progress in nut and tree fruit orchards. Beehives were placed in tree fruit and almond orchards. Broccoli, cabbage, and asparagus were harvested. Specialty crops harvested were bok choy, napa cabbage, gailon, mustard greens, swiss chard, turnips, and others.

March:

Field work was hampered by rain early in the month. Preplant herbicides were applied in cotton fields and planting commenced near the end of the month. The first cutting in alfalfa was made; fields were treated for weevils and weeds. Almond and tree fruit orchards advanced through bloom, petal fall, and leafing out as the month progressed. Apple orchards were treated for scale and worms. Bud break began in grape vineyards; vines were treated for mealybug. Planting of eggplant, peppers, squash, sweet corn and other vegetables began. Lettuce, asparagus, and broccoli were harvested. The first strawberries of the season were picked. Bees were pollinating orchards. Choy sum, collard greens, daikon, green onions, leeks, and other specialty vegetables were harvested.

April:

A thunderstorm on April 7 brought wind, hail, and heavy rain that damaged grapevines, cotton, grains, and vegetables; cotton fields damaged by the storm were replanted. Head development began in small grains; growers irrigated in some fields. Field corn was cultivated and treated with herbicides. Alfalfa and oat hay were cut, windrowed, and baled; alfalfa seed fields were cultivated or burned back with acid. Rice, sweet potatoes, yams, melons, and other vegetable crops were planted. Garlic fields were treated for rust. Tree fruit had set and was sizing well; thinning began in tree fruit orchards. Earlitreat peaches were harvested later this month. Bloom began in walnut, pecan, and apple orchards; apple growers applied thinning sprays. Strawberries were harvested; growth was slow due to cold weather. The official citrus bloom period was declared, restricting spraying in order to protect bees. Navel and Valencia oranges were harvested. Gailon, parsley, sugar and snap peas, turnips, and other specialty vegetables were harvested.

May:

Strong winds on May 2 damaged numerous crops in the westside districts; damage estimates totaled nearly two million dollars. Winter forage was cut for silage and baled for hay. Oats were harvested; oat straw was cut

and baled. Cotton fields were thinned, weeded, and treated for insect pests. Sugar beets were irrigated and cultivated. Bloom began in grape vineyards; growers applied growth regulators. Peaches, plums, pluots, apricots, nectarines, and cherries were harvested. Pomegranates and olives were blooming; pecans and walnuts were irrigated. Sweet corn began to develop tassels; blueberry plants set fruit. Amaranth, basil, beets, cabbage, cauliflower, chives, navel and Valencia oranges, okra, onions, squash, spinach, sugar peas, and yam leaves were harvested.

June:

Wheat, oats, and barley were harvested; straw was cut and baled. Melons, garbanzo beans, silage corn, and sweet potatoes were harvested. Cotton, safflower, and alfalfa fields were blooming; alfalfa fields were cut, windrowed, and baled. Field corn, silage corn, and sugar beet fields were irrigated, cultivated, and treated for weed control. Stone fruit harvesting continued; fruit thinning and summer pruning were in progress. Table grapes were picked and packed; pomegranates were developing color. Fresh figs, blueberries, boysenberries, and blackberries were harvested. Cucumbers, coriander, sweet corn, dill, eggplant, romaine and leaf lettuce, mint, moqua, ong choy, peppers, sinqua, squash, tomatoes, and other summer vegetables were harvested.

July:

Wheat and barley were harvested; stubble was disced, burned, or grazed by sheep. Cotton was irrigated, cultivated, and treated for insect control. Hand crews weeded and thinned some cotton fields. Alfalfa seed fields bloomed, set seed, and were harvested; alfalfa hay was cut, windrowed, and baled. Field corn was irrigated and treated for pests. Sugar beets, silage corn, and garbanzo beans were harvested. Safflower was blooming. Stone fruit, table grapes, Valencia oranges, Gala apples, and Asian pears were harvested. Almond hull split began; growers prepared orchards for harvest. Melons, onions, tomatoes, garlic, and other summer vegetables were harvested. Range conditions were very dry with little grazing available. Specialty vegetables harvested included green beans, bittermelon, cucumbers, eggplant, opo, peppers, and squash.

August:

Small grain harvesting continued; straw was baled and stacked. Winter wheat, forage, and rice were planted. Cotton bloom continued and boll set began. Alfalfa hay and seed were harvested; hay fields were green chopped for dairy feed. Sugar beets, garbanzos, and other dry beans were harvested. Table, juice, raisin, and wine grapes were harvested. Numerous varieties of stone fruit were harvested, along with almonds, apples, figs, Valencia oranges, pomegranates, pears, and Asian pears. Lettuce and broccoli plants were emerging and growing well. Garlic, lemon grass, long beans, melons, onions, sugar cane, tomatoes, and other summer and specialty vegetables were harvested.

September:

Harvested grain fields were prepared for fall planting. Cotton bolls were opening; defoliation began in some areas. Cotton harvesting began at the end of the month. Rice, dry beans, alfalfa hay, alfalfa seed, sudan, field corn, sweet corn, sweet potatoes, and sugar beets were harvested. New alfalfa hay fields were planted; silage was chopped and stored for dairy cattle feed. Sheep grazed harvested grain and alfalfa fields. Lettuce and broccoli were irrigated, thinned, weeded, and treated for insect pests. Seed lettuce began to bloom. Table, wine, juice, and raisin grapes were harvested. Olive groves were treated for Olive Fruit Fly; harvest began at the end of the month. Apples, quince, pomegranates, pears, stone fruit, and almonds were harvested. Mixed melons, specialty, and summer vegetables were harvested.

October:

Winter wheat and forage was planted; other grain fields were prepared for planting. Cotton, alfalfa hay, sudan, and silage harvesting continued. Rice, seed corn, field corn, and dry beans were harvested. Raisin, wine, and juice grape harvests were completed; table grape vineyards continued to produce fruit. The stone fruit harvest was complete by the end of the month; growers were irrigating and pruning to prepare their trees for dormancy. Almonds, walnuts, pistachios, and pecans were harvested. Apples, prunes, Asian pears, pomegranates, quince, persimmons, kiwifruit, figs, and strawberries were harvested as blueberries were being pruned. The melon harvest was completed as lettuce and broccoli harvesting began; seed lettuce was blooming and maturing. Garlic, tomatoes, and other summer vegetables were harvested; fields were prepared for planting of garlic, onions, cauliflower, broccoli, and other spring vegetables. Pumpkins were picked for Jack O' Lanterns and commercial processing. Olives were harvested for processing and oil. The navel orange harvest commenced; picking and packing of Valencia oranges continued.

November:

Rain early in the month slowed harvest activity in cotton, vegetables and alfalfa hay. Rice, almond, walnut, and most vegetable harvests completed; lettuce, broccoli, and cauliflower harvesting continued. New fields were planted to wheat, oats, and barley. Table grape picking and packing continued; some vines were tarped to protect them from rain. Pruning and cultivating were underway in grape vineyards and tree fruit orchards. Harvesting continued in pistachios, apples, persimmons, quince, kiwifruit, and pomegranates. This month's harvested vegetables included napa cabbage, sweet corn, collard greens, daikon, eggplant, lemon grass, mint, moqua, ong choy, peanuts, peppers, potatoes, squash, taro, turnips, tomatoes, wintermelon, and yams.

December:

Some lodging in small grains was caused by recent storms. The cotton harvest nearly completed with the exception of a few fields hampered by wet conditions. Newly emerged fields of sugar beets, garlic, and onions were growing well. Broccoli and cabbage were harvested in the Huron district. Orchards and vineyards were removed in some locations and ground was prepared for new plantings. Strawberry plants were topped and beds covered with plastic sheeting. Navel oranges and lemons were harvested. Specialty crop growers harvested bok choy, dill, gailon, leaf lettuce, mustard greens, spinach, wintermelon, yu choy, and other cold season crops.

FIELD CROPS: The total gross returns for field crops increased by \$7,855,000, from \$507,952,000 to \$515,807,000. The harvested acreage of barley was up 3,000 acres and the value of the crop increased \$669,000. Cotton, the number one crop in the county for 2001, increased in value \$13,681,000. This was up 3.86 percent from 2000 and resulted from a \$85,780,000 increase in the value of the Pima lint. Returns for alfalfa hay increased \$9,274,000 in spite of a 4,000 acre reduction in crop size. Field stubble, which consists of seed and hay alfalfa, barley, beans, broccoli, lettuce, melons, oats, tomatoes, and wheat, nearly tripled in value, climbing from \$571,000 to \$1,490,000. The harvested acreage of safflower was up and the price paid to growers increased nearly \$100 a ton; the value of this years' crop was \$1,225,000. Sugar beet acreage was down for the third year in a row; the value of the crop decreased \$8,461,000.

SEED CROPS: Total gross returns for all seed crops decreased by \$18,036,000 from the revised 2000 value of \$60,916,000 to \$42,880,000. The returns for alfalfa seed were down 47.16 percent; cotton seed decreased in value by \$1,044,000. Vegetable seed plantings were down 76.57 percent, or 2,810 acres. The other category of seed crops lost \$3,354,000 in value.

VEGETABLE CROPS: The total gross returns for vegetable crops decreased \$53,615,000, from \$791,607,000 to \$737,992,000. Bell peppers increased in value by \$8,897,000 and asparagus was down \$2,570,000. The garlic crop was up in value by \$39,512,000. Fresh garlic increased in value 34.80 percent; processed 64.39 percent. The value of the spring head lettuce crop was up \$10,008,000 while fall lettuce was down \$30,860,000. Increases in the yield per acre and price pushed the value of the cantaloupe crop up \$2,152,000. Gross returns for watermelons were up 45.86 percent. The fresh onion crop increased in value by nearly 50 percent. Total gross returns for standard tomatoes dropped 32.69 percent; processed tomatoes were down 25.06 percent.

FRUIT AND NUT CROPS: The total gross returns for fruit and nut crops decreased by \$24,266,800, from the revised 2000 value of \$1,093,432,800 to \$1,069,166,000. The value of the almond crop increased \$31,688,000; meats were up \$27,709,000 and hulls increased \$3,979,000. The price paid to growers for cherries decreased 37.85 percent, from \$6,571.00 a ton to \$4,084.00 a ton. The value of the orange crop climbed to \$146,132,000, up 61.1 percent from last year. The value of the 2000 grape crop was revised to reflect the actual price of \$600 per ton paid to raisin growers. The value of the 2001 grape crop was \$343,135,000, down \$147,950,000 from the 2000 adjusted value of \$491,085,000. It was a good year for nectarines, the crop increased in value \$24,641,000. Peaches were up \$1,117,000 and plums decreased in value \$1,322,000. The harvested acreage of both pistachios and prunes increased significantly; pistachios were up 55.19 percent and prunes 24.88 percent. Walnut plantings increased by 175 acres; the value of the crop was up \$1,639,000.

NURSERY: The gross returns from the sales of nursery products increased by \$3,109,300, from \$28,904,600 to \$32,013,900. The production of Christmas trees, down by 56.83 percent, had a value of \$10,900. The returns for other nursery products, which include bareroot fruit trees, citrus (budwood and trees), grape (rootings and cuttings), vegetable transplants, and turf, increased from \$16,302,000 to \$20,383,000.

LIVESTOCK AND POULTRY: The total gross returns for livestock and poultry decreased 6.30 percent from the 2000 revised value of \$573,288,000 to \$537,148,000. This year cattle and calves was the number seven most valuable crop in the county at \$185,500,000. The value of hogs and pigs increased by 33.67 percent, or \$1,574,000, from the revised 2000 value. Lamb production was up 1,900 head.

LIVESTOCK AND POULTRY PRODUCTS: The total value of livestock and poultry products increased \$61,149,000, from \$207,036,000 to \$268,185,000. The price of manure was down \$1.80 a ton but production was up 241,000 tons. Manufacturing milk production was down by 69,000 hundred weight while the price paid to dairymen increased 3.35 a hundred weight. The value of market milk was up \$50,274,000. Wool production decreased 6,000 pounds, but was up in value \$31,000. The value of chicken, duck, and turkey eggs was up \$10,882,000.

APIARY PRODUCTS AND POLLINATION SERVICES: Gross returns for apiary and pollination services increased by \$589,900, from \$9,209,000 to \$9,798,900. The total value of honey increased \$326,000 in 2001, while beeswax was up 43.21 percent, from \$53,000 to \$75,900. The value of pollination services for alfalfa seed fell \$647,000 as a result of a 42.38 percent reduction in the number of colonies used.

INDUSTRIAL CROPS: The total value of industrial crops decreased 21.19 percent or \$1,894,000. Timber production was down 15,382,000 board feet and its value fell \$3,858,000. Firewood was up 11,900 cords and increased in value \$1,386,000.

SUSTAINABLE AGRICULTURE

2001 BIOLOGICAL CONTROL ACTIVITIES

PEST	B.C. AGENT/MECHANISM	ACTIVITY
Puncture Vine	Puncture Vine Weevils	Confirmed that weevils were present in good numbers. No introduction needed.
Glassy-Winged Sharpshooter	<i>Gonatocerus triguttatus</i>	Released 2000 in September and October.

2001 DETECTION ACTIVITIES

INSECT	TRAPS DEPLOYED	RESULTS
Medfly	818	Two sterile flies trapped
Mexican Fruit Fly	189	None captured
Oriental Fruit Fly	153	None captured
Melon Fly	146	None captured
Gypsy Moth	402	None captured
Japanese Beetle	299	None captured
Glassy-Winged Sharpshooter	800	One nursery and numerous residences positive

SUSTAINABLE AGRICULTURE

PEST ERADICATION

RED IMPORTED FIRE ANT: continues to be found in Fresno County. An infested almond orchard was discovered during a routine survey for RIFA. It was located at the southwest corner of Jensen and Westlawn. Portions of the orchard were fairly heavily infested and it appears to have been there for several years. As the state continues to survey the almond orchards in the county, it is likely that they will find some more. The State will eradicate the population as they are found.

A former RIFA site was found to have expanded its range in the Clovis area. The RIFA site at Leonard and Shaw was found in a Southeast Asian farm across the street from the original site. A re-survey of the farm turned up positive. The initial survey of the farm had been negative. The state will lease the property, have it disced and leveled and then treat it.

GLASSY-WINGED SHARPSHOOTER: GWSS continued to be eradicated by Fresno County. As properties were found to be positive, the county sprayed them. One streetside planting at Perrin and Shepherd was left untreated to allow for release of the parasitoid *Gonatocerus triguttatus*. It is not known yet whether the parasitoids successfully established.

NEW AND UNUSUAL PEST OUTBREAKS IN 2001

In June, **Caribbean Fruit Fly** (*Anastrepha suspensa*) was detected in a shipment of guavas from Florida by one of our sniffer dogs. Forty-five maggots were found in the guava. This find possibly saved the county from a major eradication effort. The dogs definitely proved their worth.

Silver Leaf Whitefly (*Bemisia argentifoliae*), had a major outbreak late in the year. Huge clouds of adults migrated from the cotton growing areas of the Valley over to the eastside in the areas of Sanger and Reedley. Many ornamental plants and vegetable gardens were badly infested by the adults. The outbreak resulted from a very warm May and low cotton prices that prevented cotton growers from doing a lot of spraying. Populations built up in the cotton and when defoliation began they migrated out.

In July, **Striped Mealybug** (*Ferrisia virgata*) was found for the first time in Fresno County. The "B" rated pest was found on some backyard plants at a home near Bullard and First. The homeowner was going to treat her plants. The majority of specimens were found on azaleas.

2001 ORGANIC FARMING

Gross returns for organic farming in 2001 totaled \$14,252,000. A large variety of crops were produced in compliance with the California Organic Food Act of 1990. One hundred farms totaling 8,457 acres and 23 handlers (shippers/packers) were registered organic in Fresno County in 2001. Crops grown, packed, and shipped include alfalfa, almonds, apples, apricots, arugula, artichoke, barley, basil, beans, beets, bell peppers, blueberries, broccoli, cabbage, cantaloupes, carrots, cattle, cauliflower, celery, chard, cherries, cilantro, corn, cotton, cucumbers, daikon, eggplant, endive, fennel, figs, garlic, gourds, grapes, grapefruit, kiwifruit, leeks, lemons, lettuce, milk, nectarines, nursery plants, olives, onions, oranges, parsley, parsnip, peaches, peas, peppers, persimmons, pistachios, plums, pluots, pomegranates, potatoes, radishes, raisins, shallots, spinach, squash, strawberries, tangerines, tomatoes, turkeys, walnuts, watermelons, and wheat.